

09/876,190

5

199-2062 (VGT 0179 PUS)

**REMARKS**

The final Office Action dated March 24, 2006, was carefully reviewed. The Examiner maintained the rejection of claims 1-8 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,741,847 to Claxton et al., hereinafter Claxton in view of U.S. Patent No. 6,418,327 to Carey et al., hereinafter Carey.

The present invention teaches summing only the desired signals filtered from the entire frequency band into one summed signal. Each of the desired signals is defined by a tuning a tunable bandpass filter to the desired frequency. Likewise, independent claim 6 requires filtering the analog signal into a predetermined number of desired frequencies and then combining only the desired frequencies into a single combined analog signal. In the embodiment described in Claim 8, undesired signals are filtered out and absorbed by tunable bandpass filters thereby preventing an overload of the receiver. One or more of the tunable bandpass filters are tuned to one or more of the undesired channels to absorb the undesired signals. This significantly reduces the signal to noise ratio.

The Examiner suggests that because the Claxton reference sums both desired and undesired signals that a signal could be summed automatically or it could be summed only when desired. It is respectfully asserted that this is incorrect. The Claxton reference sums all of the signals in a bandwidth and does not distinguish between desired and undesired signals. Therefore, it is impossible for Claxton to teach or suggest summing only desired signals. According to the teachings of the Claxton reference, all of the signals, both desired and undesired, will always be subject to the summing process. Because Claxton does not teach or disclose

09/876,190

6

199-2062 (VGT 0179 PUS)

identifying desired and undesired signals, it cannot possibly teach or suggest summing only desired signals.

Furthermore, the Claxton reference downconverts all high frequency signals, including desired and undesired signals, to an intermediate frequency, or baseband signal. In contrast, the present invention teaches summing only the desired signals filtered from the entire frequency band into one-summed signals. Each of the desired signals is defined by tuning a tunable bandpass filter to the desired frequency. The present invention does not use an intermediate frequency or baseband signal.

The Examiner asserted that the Carey reference discloses a digital tuner that is able to process only the multiple desired signals from a digitized signal, as well as undesired signals. However it is respectfully maintained that the Carey reference teaches identifying and summing undesired interference levels in order to compare the sum to a desired signal level. The Carey reference does not teach or disclose filtering out undesired signals in order to sum and process only desired signals as taught by the Applicants of the present invention. In fact, the Carey reference teaches optimizing a ratio for engineering design of the optimum antenna radiation pattern in each sector of a wireless communication network.

The assertion that one skilled in the art would not look to combine the Carey reference with the Claxton reference as suggested by the Examiner is respectfully maintained by the Applicants of the present invention.

09/876,190

7

199-2062 (VGT 0179 PUS)

Further, the assertion that even if Claxton were combined with Carey as suggested by the Examiner, the combination would not result in the Applicants' invention is also respectfully maintained. The Claxton reference teaches downconverting all high frequency signals, including desired and undesired signals, to an intermediate frequency, or baseband signal. The Carey reference teaches calculating a sum of undesired interference levels, comparing it to a desired signal level and optimizing an antenna radiation pattern based on the ratio of undesired interference levels to the desired signal level. The Carey reference does not teach or disclose filtering out undesired signals so that only desired signals are summed and processed. Therefore, even if the references were combined as suggested by the Examiner the combination would not result in the Applicants' invention which receives and combines only desired signals for signal processing and filters out or absorbs undesired frequencies.

Furthermore, the combination of Claxton and Carey would still result in Claxton requiring mixing and filtering the different signals and a local oscillator for each signal, all of which the present invention is designed to avoid.

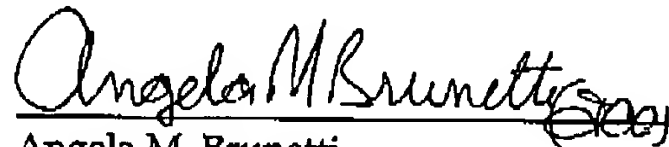
09/876,190

8

199-2062 (VGT 0179 PUS)

It is respectfully requested the Examiner withdraw the rejection of claims 1-8 under 35 U.S.C. § 103. Should the Examiner have any questions or comments that may place the application in better condition for allowance, he is respectfully requested to contact the undersigned attorney.

Respectfully submitted,



Angela M. Brunetti  
Reg. No. 41,647

Attorney for Applicant(s)

Date: May 24, 2006

Artz & Artz, P.C.  
28333 Telegraph Road, Suite 250  
Southfield, MI 48034  
(248) 223-9500  
(248) 223-9522 (fax)